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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,437	05/15/2006	Martha Louisa Frost	11046-2	7868

7590 04/17/2007  
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EXAMINER

ROGERS, DAVID A

ART UNIT	PAPER NUMBER
2856	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/17/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/579,437

Applicant(s)

FROST, MARTHA LOUISA

Examiner

David A. Rogers

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because they do not comply with the requirements of 37 C.F.R. 1.84(g) (sheets must not contain framing); 37 C.F.R. 1.84(l) (every line, number, and letter must be durable, clean, black, sufficiently dense and dark, uniformly thick, and well defined); and 37 C.F.R. 1.84(p)(3) (number, letters, and reference characters must measure at least 1/8 inch in height).

Corrected drawing sheets in compliance with 37 C.F.R. 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 C.F.R. 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

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informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-6, 10-21, 22-31, 33-37, and 39 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by United States Patent 3,010,223 to Alderson.

Alderson discloses an anthropomorphic test dummy (ATD) comprising an upper torso with a head (reference item 10), a lower torso (reference item 12), upper arms (reference items 14 and 16), lower arms with hands (reference items 18 and 22), upper legs (reference items 26 and 30), lower legs with feet (reference items 28 and 32). The parts can be formed of plastic or any suitable material such as cellulose acetate butyrate. As seen in figures 2 and 3 and described in column 3 (lines 4-75) the various body parts are interconnected using connector elements; e.g., pivot (reference item 50), bearing (reference item 52), toothed member (reference item 54), toothed block (reference item 56). These pivots allow the appendages to move and be locked in various positions in relationship to each other. As discussed on column 5 (lines 27-42) the ATD

can be configured such that there is no internal skeleton and no "enclosures". Alderson discloses that "enclosures" are the various simulated organs that could be placed within the ATD. An ATD without a skeleton or enclosures would be essentially a mannequin with hollow body parts. Finally, as seen in figure 9 the ATD has numerous closures (reference item 40) that allow for each body part to receive or drain a liquid filler material. See column 6 (lines 26-28) "[t]his principle is used throughout the entire dummy and ports are located at various points 40 where it is desirable to insert or remove test materials." As seen on column 3 (lines 48-59) the filler material comprises water.

With regard to claims 11 and 15 it is disclosed that the thighs and upper arms can pivot (articulate). See column 3 (lines 3-17).

With regard to claims 18 and 19 it is disclosed that the lower arms can pivot (articulate) with respect to the upper arms. These pivot (reference items 20 and 24) would be essentially elbows for the lower arms. See column 3 (lines 3-17).

With regard to claims 16, 20, and 25 the toothed member and toothed block allow the appendages to be fixed (non-articulating) in various positions with respect to the other body parts. With regard to claim 24 the moving and locking of the upper thighs in relationship to the torso is functionally equivalent to moving and locking the torso in relationship to the thighs.

With regard to claim 23 the hands are not disclosed as being provided with pivots. Therefore, they must be non-articulating.

With regard to claim 26 it is disclosed that the lower legs can pivot (articulate) with respect to the thighs. These pivots would be essentially knees for the lower legs. See column 3 (lines 3-17).

With regard to claims 27, 29, and 35 it is considered inherent that the lower legs and thighs can be pivoted and fixed such that the knees are positioned towards the torso to simulate a seating-type position. Inherency is based on the fact that the toothed member and toothed block are shown in figures 2 and 4 as being capable of rotating 360°.

With regard to claim 28 the figures clearly show knees that are separated.

With regard to claims 33 and 34 the ATD is shown in an erect position. Placing the ATD on the ground would inherently be a reclining position.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7, 9, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alderson as applied to claims 5 and 21 above, and further in view of United States Patent 3,557,471 to Payne *et al.*

Alderson teaches the ATD as claimed, but does not teach an ATD formed

of rubber. Payne teaches an ATD that can be filled with liquid. The ATD is formed of rubber in order to simulate an actual human. The ATD is comprised of hands, feet, arms, legs, torso, and head. Each of the appendages, including the hands, can be moved by the various joints. See reference item 40 for the hand joint.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alderson with Payne *et al.* to provide an ATD formed of rubber to closely resemble an actual human.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alderson and Payne *et al.* as applied to claim 7 above, and further in view of United States Patent 5,419,729 to Gross.

Alderson teaches the ATD formed as a life-like structure with rubber, but does not teach an ATD formed of hard rubber. Gross teaches a life-like structure is formed of hard rubber. The choice "skin material is based on the environment that the ATD is to be used. In this case hard rubber would not easily tear or rib during use.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alderson and Payne *et al.* with Gross provide an ATD formed of hard rubber.

7. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alderson as applied to claim 107 above, and further in view of United States Patent 5,195,96 to Sweeney *et al.*

Alderson teaches an ATD with a head. Alderson does not teach that the head is detachable from the torso.

Sweeney *et al.* teaches that it is known to provide a mannequin with a detachable head.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Alderson with the teachings of Sweeney *et al.* in order to provide a detachable head in order to allow it to be easily replaced in case of damage.

8. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alderson in view of United States Patent

Alderson teaches a test figures comprising a set of interconnected shaped body parts. The shaped body parts have fill member to allow the parts to be filled with a liquid. Alderson does not teach a test figure having the ability to flow the filling liquid between the body parts.

Donnelly *et al.* teaches that it is known to provide a test figure with fluid flowing means to allow fluid to flow between the various body parts in order to simulate the thermal properties of a person.


It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Alderson with the teachings of Donnelly *et al.* in order to adapt the test figure to allow fluid to flow between the shaped body parts in order to simulate the thermal properties of a person.



**Conclusion**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Rogers whose telephone number is (571) 272-2205. The examiner can normally be reached on Monday - Friday (0730 - 1600). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
David Rogers  
Primary Examiner  
Group Art Unit 2856  
12 April 2007